UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/697,968	10/30/2003	Eric Lawrence Barsness	ROC920030021US1	8987

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EXAMINER
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ART UNIT	PAPER NUMBER
2169	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/697,968	BARSNESS ET AL.
	Examiner	**Art Unit**	
	HUNG Q. PHAM	2169	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _19 June 2008_.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _8,10 and 11_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _8,10 and 11_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Duplicate Claims, Warning

The warning of duplicate claims has been withdrawn due to the cancellation of the duplicated claims.

Claim Rejections - 35 USC § 112

Applicant's arguments with respect to the rejection of claims 8 and 11 under 35 U.S.C. § 112, first paragraph, have been fully considered but they are not persuasive.

As argued by applicant (Remarks, Page 6):

> *Applicant's FIG. 3 shows "Start Processing Query1" at point F on the timeline. The processing of Query1 is not complete until point I on the timeline. After Query1 has started to be processed at point F, Query2 is received at point G and Query3 is received at point H. Applicant respectfully asserts the processing of Query1 between point F and point I in FIG. 3 will necessarily require a pre-execution phase, an execution phase that involves interrogating the database, and a post-execution phase, as is known by those of ordinary skill in the art. Because these three phases (pre-execution, execution and post-execution) are performed in processing all queries, these phases are inherent to the processing of the query between points F and I on the timeline in FIG. 3. Because these phases are inherent in the processing of all database queries, applicant is free to limit the claims according to these well-known phases. The limitation "after interrogating the database has begun while processing the first query" means the processing of the first query has already entered the execution phase. This limitation is clearly supported by the processing of Query1 between points F and I in FIG. 3, because the processing of Query1 between points F and I will necessarily require a pre-execution phase, an execution phase, and a post-execution phase. Limiting the claims to something that occurs during the execution phase is fully supported by FIGS. 3 and 4 and the associated text in the specification when viewed in light of the steps taken to executed queries, which are well-known to those of ordinary skill in the art. Therefore, the limitations in applicant's claims are fully supported by the specification in light of the knowledge of one of ordinary skill in the art. As a result, one of ordinary skill in the art would easily recognize based on the disclosure how to make and use the invention. As a result, the specification fully enables the claims, and applicant respectfully requests reconsideration of the examiner's rejection of the claims under 35 U.S.C. § 112, first paragraph.*

The examiner respectfully disagrees.

The condition for implementing the step of evaluating the query, i.e., *after interrogating the database has begun while processing the first query*, was not supported by the specification of the current application and rejected in the Office Action 05/08/2008.

To support to the rejected feature, the applicant directed the examiner to the article "Understanding How PostgreSQL Executes a Query" with three phases process. Pre-execution phase is to parse and optimize the query. Execution phase is to interrogate the database. Post-execution phase is to return the query result (Remarks, Page 6). The applicant also uses FIG. 3 as evidence to assert that the three phases is from point F to I, e.g., *[A]pplicant respectfully asserts the processing of Query1 between point F and point I in FIG. 3 will necessarily require a pre-execution phase, an execution phase that involves interrogating the database, and a post-execution phase, as is known by those of ordinary skill in the art.*
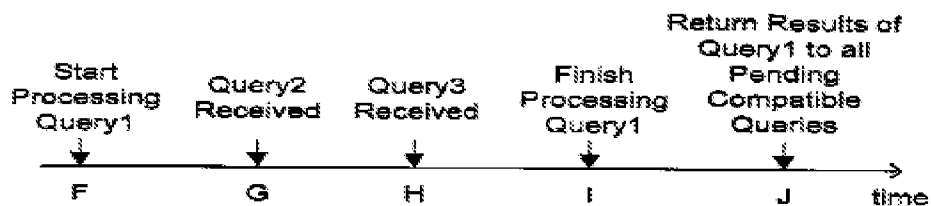
In fact, the provided article is not appropriate to be used as evidence to support the rejected limitation. However, in hoping that the applicant will amend the claims to distinguish the claimed invention over the prior arts of record, the examiner will look at the provided article to point out the conflicts between the claimed features and the specification of the current application.

The applicant's assertion is contradicted with FIG. 3, because if the three phases process including interrogating the database and returning the result is between point F and I as

asserted, the result must be returned to the query at point I and not at point J as illustrated in

FIG. 3. As in FIG. 3, the result is returned to the query 1 at point J.

As disclosed in the Specification of the current application, the step of *evaluating at least*

one other query that is received during the processing of the first query to determine whether the at least one

other query is satisfied by the first result set is occurred from point F to I (Specification, Page 10 Line

18-Page 11 Line 3). The result of query 1 is returned at point J as in FIG. 3. The time between I

and J as shown in FIG. 3 clearly indicate the execution time for interrogating the database in

order to return the result at J.

According to the three phases process from the article "Understanding How PostgreSQL

Executes a Query", and as indicated in FIG. 3 supported by the Specification, the step of

evaluating the at least one other query is before the interrogating phase and not after the interrogation

of database. Therefore, the condition for evaluating at least one other query, i.e., *after*

interrogating the database has begun while processing the first query, is not supported by the Specification

at least in view of FIG. 3 and the three phases process.

The examiner respectfully directs the applicant to claim 10 as evidence that supported

the examiner assertion. As further recited in dependent claim 10, the queries from F to I are

grouped to create a new query for each group and the new query is processed and generating

result set for the new query. The features of dependent claim 10 clearly indicate that there is no

step of evaluating in claim 8 is before the interrogating the database, i.e., *generating a new query*

for each group that will produce a result set that will satisfy all queries in the group.

In view of the foregoing reasons, the rejection of claim 8 and 11 under 35 U.S.C. § 112,

first paragraph, is continued as in the following manners.

Claim Rejections - 35 USC § 103

1.   Applicant's arguments with respect to the rejection of claim 8 under 35 U.S.C. §
103 have been fully considered but they are not persuasive.

- As argued by applicant (Remarks, Page 7):

> *The examiner does not even allege Periwal discloses these limitations. As a result, the examiner*
> *has failed to establish a prima facie case of obviousness for claim 8 under 35 U.S.C. § 103(a).*
> *Applicant readily admits Periwal teaches that a database is interrogated with the SELECT statement*
> *while processing the query that includes the SELECT statement. This is axiomatic, querying the*
> *database must be performed when processing a SELECT statement. However, Periwal has no teaching*
> *whatsoever of "after interrogating the database has begun while processing the first query, evaluating*
> *at least one other query that is received during the processing of the first query," as recited in claim 8.*
> *In short, Periwal has no bearing or relationship to the specific teaching in the claims the examiner*
> *admitted was missing in Graves, namely "after interrogating the database has begun."*

The examiner respectfully disagrees.

As specified in the Office Action 05/08/2008, the missing of Graves is the condition for

evaluating the second query. Grave does not teach that the evaluating the second query is *after*

interrogating the database has begun. Periwal teaches that a database is interrogated with the

SELECT statement while processing a query (Periwal, FIG. 14 A, Box 1412). Therefore, a prima

facie case of obviousness for claim 8 under 35 U.S.C. § 103 (a) is established. There is no need

from Periwal teaching in the claimed limitation *while processing the first query, evaluating at least one*

other query that is received during the processing of the first query. The claimed limitation *while processing*

the first query, evaluating at least one other query that is received during the processing of the first query is

disclosed by Graves as detailed in the Office Action 05/08/2008.

- As argued by applicant (Remarks, Page 8):

> *The entire disclosure of Graves thus discloses aggregating individual requests into a single*
> *request that is presented to the resource management system. In Graves, the single request cannot be*

presented to the resource management system until individual requests have been aggregated and a single request can then be formulated that represents the aggregated requests. As a result, Graves expressly teaches away from "after interrogating the database has begun while processing the first query, evaluating at least one other query that is received during the processing of the first query" as recited in claim 8. Because the entire goal of Graves is to aggregate multiple requests into a single request, it is impossible to evaluate at least one other query that is received during the processing of the first query after interrogating the database has begun while processing the first query, as expressly recited in claim 8. As a result, the combination of any reference that allegedly teaches "after interrogating the database has begun while processing the first query, evaluating at least one other query that is received during the processing of the first query" with Graves would be improper because the express teachings of Graves teach away from these limitations.

The examiner respectfully disagrees.

In parallel processing, it is possible to evaluate one query while aggregating queries. Especially when a first request is for balance on account 111, the second request is for balance on account 222 and the third request is for balance on account 333 (Graves, Col. 4 Lines 17-21). If the database is interrogated for balance on account 111 as taught by Periwal (Periwal, FIG. 14 A, Box 1412), while aggregating the three queries as disclosed by Graves (Graves, Col. 4 Lines 34-40). The aggregated query will interrogate the database for balance on account 222 and 333 and not for balance on account 111 because the balance on account 111 has been interrogated.

2.   In response to applicant's argument that the rationale for combining Graves and Periwal is defective (Remarks, Pages 8 and 9), the examiner recognizes that obviousness is established by combining the teachings of the prior art to produce the claimed invention where there is motivation to do so found in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, by interrogating the database for the

first query, the processing speed will increase because one result is ready for the aggregated

query as in the example provided above.

3.　　　Applicant's arguments with respect to claim 10 and 11 have been fully

considered but they are not persuasive. Claim 10 depends on claim 8, which is unpatentable for

the reasons given above. As a result, claim 10 is unpatentable as depending on an

unpatentable claim independent claim. Claim 11 includes limitations similar to those in claim 8,

and is therefore unpatentable for the same reasons.

　　　In view of the foregoing reasons, the rejection under 35 U.S.C. § 103 is continued as in

the following manners.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 8 and 11 are rejected under 35 U.S.C. 112, first paragraph, as failing to

comply with the written description requirement. The claim(s) contains subject matter

which was not described in the specification in such a way as to reasonably convey to

one skilled in the relevant art that the inventor(s), at the time the application was filed,

had possession of the claimed invention.

Regarding claims 8 and 11, the condition for evaluating at least one other query, i.e.,

after interrogating the database has begun while processing the first query, was not described in the

specification.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the

claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various

claims was commonly owned at the time any inventions covered therein were made absent any

evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out

the inventor and invention dates of each claim that was not commonly owned at the time a later

invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c)

and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 8, 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Graves et al. [USP 6,785,675 B1] in view of Periwal [USP 6,463,776].

Regarding claims 8 and 11, Graves teaches a method for processing a plurality of

database queries comprising:

processing a first query to a database by interrogating the database to generate a first result set (Col. 4

Lines 25-26 and Col. 3 Lines 20-30), and

while processing the first query evaluates at least one other query that is received during the processing

of the first query to determine whether the at least one other query is satisfied by the first result set (Col. 4

Lines 27-28 and Col. 3 Lines 20-30),

returning the first result set to the first query and using the first result set to generate at least one other

result set for any of the at least one other query that is satisfied by the first result set without caching the first

result set and without interrogating the database (Col. 4 Lines 40-67).

The missing of Graves is the condition for evaluating the second query. Grave does not

teach that the evaluating the second query is *after interrogating the database has begun.*

Periwal teaches that a database is interrogated with the SELECT statement while

processing a query (Periwal, FIG. 14 A, Box 1412).

By interrogating the database for the first query as taught by Periwal, the processing

speed will increase because one result is ready for the Graves aggregated query. Therefore, it

would have been obvious for one of ordinary skill in the art at the time the invention was made

to interrogate the database for the first query as taught by Periwal into Graves method in order

to speed up the process of retrieving information for the aggregated query.

Regarding claim10, Graves and Periwal, in combination, teach all of the claimed subject

matter as discussed above with respect to claim 8, Graves further discloses the steps of *delaying*

processing a plurality of received queries, grouping compatible received queries together, generating a new query

for each group that will produce a result set that will satisfy all queries in the group, processing each new query,

and generates from the result set of each new query at least one other result set for queries in the group

corresponding to the new query (FIG. 3, Col. 3 Lines 20-65 and Col. 4 Lines 17-55).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUNG Q. PHAM whose telephone number is 571-272-4040. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JAMES K. TRUJILLO can be reached on 571-272-3677. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you

would like assistance from a USPTO Customer Service Representative or access to the

automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/HUNG Q. PHAM/
Primary Examiner
Art Unit 2169

October 03, 2008